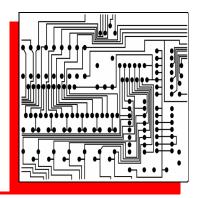
TECHNICAL DATA / PRINTED CIRCUIT BOARD FILM

KODAK PRECISION LINE Contact Film UCA7

-High Complexity PCB Starts With the Right Phototools-



May 2005 • TI-2037

- Designed for making contact phototools from photoplotter output or other line work.
- · Negative working, slow speed, ultraviolet sensitivity
- Expose with high intensity metal halide or pulsed-xenon source
- Use in white fluorescent illumination covered with ultraviolet-absorbing material or in yellow fluorescent illumination
- Very dimensionally stable ESTAR Thick Base with antistatic properties under a wide range of humidity conditions, both before and after processing.
- Excellent scratch and abrasion resistant overcoat.
- Produces high image density at line-for-line exposures with minimum pinholes.
- Sufficient matte level on both sides to minimize Newton's rings and to provide rapid drawdown in vacuum printing frames.
- Can also be processed in a wide selection of machine developers including lith and rapid-access, along with KODAK ULTRALINE Developer and Replenisher.

SUPPORT

Dimensionally stable support.

7-mil (0.18 mm) ESTAR Thick Base

DARKROOM RECOMMENDATIONS

This film can be safely handled for up to a total of 60 minutes, before or after exposure, in up to 40 footcandles (430 lux) of roomlight illumination substantially free of ultraviolet (UV) energy. Such illumination is supplied by yellow fluorescent lamps (warm white preferred) and white fluorescent lamps covered by UV-absorbing or modified by UV-absorbing plastic diffusers. Other roomlight sources contain varying amounts of UV energy, and their roomlight tolerances for this film should be tested under the specific conditions of use.

STORAGE AND HANDLING

Keep unexposed film and processed film in a cool, dry place. Process film as soon as possible after exposure.

EXPOSURE

Expose with a multi-level high-intensity metal-halide exposure source. Optimum exposure should be determined by means of a trial exposure series, following the equipment manufacturer's recommended procedures. Use a trial exposure time of 5 to 20 seconds at an exposure distance of 127 to 152 cm (36 to 60 inches). Contact your Kodak representative for more information.

Note: Exposures for optimum line width reproduction are critical when using a broad light source, and when making base-to-emulsion exposures. Any light falloff from the center to the edge of the exposing source may affect overall reproduction quality and introduce problems with accurate line-width reproductions.

Precautionary: Contact the manufacturer of high intensity ultraviolet lamps for safety information pertaining to ultraviolet radiation and ventilation requirements due to ozone generation.



RECIPROCITY

With recommended processing, the reciprocity speed change is negligible (1/3-photographic stop or less) within exposure range of 1/1000 second to 100 seconds; there is no change in contrast.

PROCESSING

Notice: Observe precautionary information on product labels and on the Material Safety Data Sheets.

Use KODAK ACCUMAX Rapid Access Developer and Replenisher (diluted 1:2) and KODAK PROFESSIONAL Rapid Fixer and Replenisher (diluted 1:3). Do not use any type of hardener in the fixer.

	Size	CAT No.
KODAK ACCUMAX Rapid Access Developer and Replenisher	5 L concentrate	887 5569
KODAK PROFESSIONAL Rapid Fixer and Replenisher	5 L concentrate	174 9839

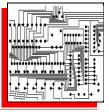
Recommended Starting Points:

Developer Temperature	Time (Seconds)	
ACCUMAX Developer		
38°C (100°F)	30 seconds	
35°C (95°F)	45 seconds	
32°C (90°F)	60 seconds	
RA 2000 Developer Repro Developer (Liquid)		
35°C (95°F)	30 seconds	
32°C (90°F)	45 seconds	

Fixer: Use a fixer temperature of 32 - 35°C (90 - 95°F).

Replenishment Rates:

Developer	Fixer
350 mL / sq m	540 mL / sq m)



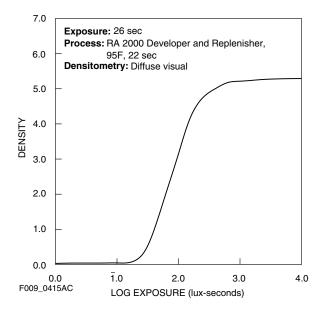
DIMENSIONAL STABILITY

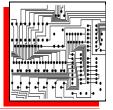
Dimensional stability is an all-inclusive term. In photography, it applies to size changes caused by changes in humidity and in temperature, and by processing and aging. The dimensional properties of ESTAR Base may vary slightly in different directions within a sheet; the differences that may exist, however, are not always equal between the length and width directions.

Differences in size change between length and width directions should be within 10 percent of each other.

CURVES

Characteristic Curve





KODAK PRECISION LINE Contact Film UCA7

MORE INFORMATION

For the latest version of technical support publications for Kodak products, visit Kodak on-line at:

http://www.kodak.com/go/PCBproducts

If you have questions about Kodak products, call Kodak. In the U.S.A.:

1-800-242-2424, Ext. 19, Monday-Friday

9 a.m.-7 p.m. (Eastern time)

In Canada

1-800-465-6325, Monday-Friday

8 a.m.-5 p.m. (Eastern time)

From outside the US/Canada: 1-716-724-4000

Note: The Kodak materials described in this publication for use with UCA7 Film are available from dealers who supply KODAK PROFESSIONAL Products. You can use other materials, but you may not obtain similar results.

NOTICE: The sensitometric curves and data in this publication represent product tested under the conditions of exposure and processing specified. They are representative of production coatings, and therefore do not apply directly to a particular box or roll of photographic material. They do not represent standards or specifications that must be met by Eastman Kodak Company. The company reserves the right to change and improve product characteristics at any time.

Aerial and Industrial Markets Business **EASTMAN KODAK COMPANY • ROCHESTER, NY 14650**

